

Collider Accelerator Department

Issued: October 13, 1999

Radiation

Safety

Committee

Minutes of Oct 12, 1999

Subject: **New controlled access for the NASA run in the A1 primary cave**

Attending: D. Beavis, A. Etkin, N. Williams, P. Ingrassia, D. Lazarus, E.T. Lessard,
J.W. Glenn, T. Talerico

Some of the experiments conducted as part of E947 in the A1 primary cave require frequent and quick access. The experiment is expected to operate for about 200 hours this year and each year in the foreseeable future. A method has been proposed to allow for quicker controlled access into the A1 primary cave.

The proposed method uses a palm reader to release keys to trained individuals from a local key tree. These keys would then be used to allow controlled access into the experimental area with a simultaneous release from MCR. The proposed method differs from the present method of remote controlled access used in some PASS areas by placing the controlled access keys at the experimental area rather than MCR.

The committee recommends that the department proceed with this work with the following requirements:

The system uses the existing remote access control procedures with minimal changes. This includes two video cameras to monitor the entrance/exit with simultaneous release required for both entrance and exit. **(CK-A1-E947-1)**

Engineering reviews be conducted of both the wiring changes to the relay based ACS and to the components being purchased. Attention should be given to potential failure modes which would allow the undesired release of keys. The review should examine the appropriate length of time the palm reader allows a key to be removed from the key tree. **(CK-A1-E947-2)**

All keys should be controlled and inventoried with all spares locked in the safe of A. Etkin. **(CK-A1-E947-3)**

The key tree must provide two hardwired signals to the ACS. The required signals are key tree complete and key tree not complete. Implementation of the signals in the ACS should be part of the logic and wiring reviews. **(CK-A1-E947-4)**

An alternate method to release keys from the key tree should be developed which does not use the palm reader but rather a master release key with appropriate controls and procedure, thus bypassing the palm reader. In addition, the system should be compatible with the standard gate watch procedure. **(CK-A1-E947-5)**

Procedures for palm reader operation, bypassing the palm reader, and loading the palm reader need to be written. **(CK-A1-E947-6)**